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ABSTRACT

This unit is concerned with problems and strategies involved in achieving systemwide improvements within a school district rather than having such improvements occur only in a fraction of classrooms or schools. A person who completes this unit should be able to accomplish the following objectives: define diffusion within a school system and indicate patterns in which changes can spread, illustrate needs for change that usually are systemwide and others that may be confined to one school, justify the spread of change programs across levels to meet the needs of students as they progress through the grades, identify reasons why a successful pilot program may fail to spread on a systemwide basis, state the conditions under which a pilot test approach to a change program is indicated and state its advantages, state the conditions under which an initial systemwide adoption of a change program is indicated and state its advantages, demonstrate the advantages of combining an initial pilot project with systemwide participation in planning toward eventual diffusion, define and illustrate the theme approach to systemwide change and state its advantages, list the advantages of a homemade product or program for systemwide diffusion, critique a local change strategy and outline a superior strategy for meeting system needs, and outline a plan for introducing and diffusing an innovative program systemwide. (Author/IRT)

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TRAINING FOR LEADERSHIP IN LOCAL
EDUCATIONAL IMPROVEMENT PROGRAMS

UNIT 10. DIFFUSING EDUCATIONAL IMPROVEMENT PROGRAMS WITHIN A SCHOOL SYSTEM

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PREFACE

This is one of 10 units in a program of Training for Leadership in Local Educational Improvement Programs. Development of the program was begun at the Learning Research and Development Center at the University of Pittsburgh and has been carried forward at Research for Better Schools in Philadelphia.

If you have in hand the Instructor's Guide to the program, or Unit 1 entitled Training Program Introduction and General Study Plan Guide, you will have sufficient introduction to the nature and purposes of the training program. If you do not have access to one or both of these items, the following paragraphs will introduce you to this unit of the program.

This unit is designed for use by anyone holding a position calling for leadership in planning and conducting local educational change programs. This means school district leaders - central office administrators, building principals, curriculum specialists, or teachers involved in change project supervision. In addition, curriculum specialists or field personnel of state education departments or other educational agencies may find the unit of value in their work with school districts - as in the conduct of workshops involving local school personnel.

The unit can be studied on a wholly self-instructional basis, or with an instructor's direction. It requires about 6 to 10 hours of study time.

This unit is concerned with the critical problem of achieving district-wide adoption of significant improvement programs. Very often improvements do not spread throughout a school system even when a local pilot has shown them to be highly beneficial.

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UNIT 10. DIFFUSING EDUCATIONAL IMPROVEMENT PROGRAMS WITHIN A SCHOOL SYSTEM

Introduction

This unit is concerned with problems and strategies involved in achieving system-wide improvements within a school district rather than having such improvements occur only in a fraction of classrooms or schools.

When a district identifies needs for improvement in any aspect of the school system, it usually is true that those needs exist throughout the district rather than being present only in some of the classrooms, levels, or schools making up the system. Thus, if there are shortcomings in the elementary reading program, these same deficits will probably exist to a significant -- though not necessarily the same -- degree in all schools in the district. If there is a need to increase community participation in the school program (as tutors, aides, or resource persons) this too will be true throughout the district. Similarly, the need to provide better accommodation for individual differences among students, if present in one school at the elementary or secondary level, is almost certain to be present in all other district schools at that level.

When innovative practices or products are available that promise to produce significant learning improvement, they should be considered for use on a system-wide basis. Examples include individualized learning programs, cooperative teaching, open classrooms, materials or procedures designed to foster students' affective development, or in-service teacher education programs for working with culturally-different children.

In actuality, it often happens that changes, introduced on a pilot basis in one or two schools, fail to spread throughout the district even when the pilot tryout has been clearly successful. There are numerous

reasons for this failure of school districts to achieve system-wide adoption of improvements even after a successful tryout. This unit reviews these reasons, then examines the different strategies that can be employed to foster the diffusion process. As Orlosky and Smith have stated:

> The lack of a diffusion system will lead to abortive change. A change initiated in a particular school, in the absence of a plan for diffusion, no matter how loudly it may be acclaimed, is not likely to become widespread or permanently entrenched.

(Orlosky, D. and Smith, B.O., "Educational change, its origins and characteristics." Phi Delta Kappan, 1972, 53. 412-414.)

It is the purpose of this unit to help you plan soundly for the system-wide diffusion of a desirable change, so that such change can become both "widespread" and "permanently entrenched."

This unit, which should require approximately two days of study, consists of 11 study objectives which offer a general review of the process of diffusing change within a school system. Upon the completion of this unit, you should be able to accomplish the following objectives:

Objective 1. Define diffusion within a school system and indicate patterns in which changes can spread.

Objective 2. Illustrate needs for change that usually are system-wide, and others that may be confined to one school

Objective 3. Justify the spread of change programs across levels to meet the needs of students as they progress through the grades.

Objective 4. Identify reasons why a successful pilot program may fail to spread on a system-wide basis.

Objective 5. State the conditions under which a pilot test approach to a change program is indicated and state its advantages.

Objective 6. State the conditions under which an initial system-wide adoption of a change program is indicated and state its advantages.

Objective 7. Demonstrate the advantages of combining an initial pilot project with system-wide participation in planning toward eventual diffusion.

Objective 8. Define and illustrate the theme approach to system-wide change and state its advantages.

Objective 9. List the advantages of a home-made product or program for system-wide diffusion.

Objective 10. Critique a local change strategy and outline a superior strategy for meeting system needs.

Objective 11. Outline a plan for introducing and diffusing an innovative program system-wide.

Unit Study Plan

In approaching this unit, your first task is to decide how intensively you want or need to study each objective. Then you will need to plan how to go about it. Here is a guide for doing so, either with help from your instructor (if you have one) or on your own. The procedure you are to follow is in 4 steps: assessing your needs to study the unit, deciding on your way of studying it, assessing your mastery of the unit objectives after study, and filling out your evaluation of the unit.

1. Personal assessment of needs to study the unit. In this step, you should first leaf quickly through the unit to familiarize yourself with the objectives and their content. Do this in a cursory fashion; it serves only to set your mind in relation to the unit. 30 minutes should be enough for skimming over the unit contents.

Next, complete the Pre-Assessment Exercise (pages 5-7) as a basis for estimating your present degree of mastery of the unit objectives. The exercise calls upon you to think through the needs for, and accomplishment of, diffusion of various kinds of programs within a school system. You are asked to give illustrations of your own to some of the questions. (This exercise has been based on Objectives 1-9 of this unit. Objectives 10 and 11 have been omitted because they are meant to apply to what you will have learned after completing the unit.) You should not take more than 30 minutes to do the Pre-Assessment Exercise.

When you complete the exercise, turn to page 67 for directions on checking your answers with the Pre-Assessment Exercise Answer Key. Remember that this exercise is designed mainly to give you an idea of what elements of this unit will require the greatest amount of time and concentration on your part.

PRE-ASSESSMENT EXERCISE - UNIT 10

Directions: This exercise offers you a way of checking how well prepared you are to perform the objectives for diffusing local educational improvement programs. It should take you no more than one-half hour to complete the exercise. Compare your answers to those given in the Answer Key on page 67.

---

1. This unit deals with diffusing educational improvement programs within a school system. Diffusion may involve change in a general theme, an instructional system, or an instructional product. Can you give an example of each of these types of change?

Theme: _____

Instructional system: _____

Instructional product: _____

2. Give some examples of needs for change which are apt to exist on a system-wide basis.

3. What are types of innovative programs which, if adopted at one level, cause problems of articulation below or above that level?

4. List some reasons why a successful pilot program may fail to spread system-wide.

5. List the advantages of introducing an innovation through the pilot test procedure.

6. List some advantages of introducing a new program initially on a system-wide basis.

7. State the advantages of combining an initial pilot project with system-wide participation in the planning for diffusion.

8. What are the advantages for diffusion of propagating a broad purpose or theme rather than specific changes?

9. List the advantages and disadvantages of a system-made change program as compared to one imported from outside.

Advantages of system-made programs:

Advantages of externally developed programs:

Now that you have completed the Pre-Assessment Exercise, you (and your instructor, if you have one) should compare your answers with those given in the Pre-Assessment Answer Key on pages 67-69. Compare the quality and detail of your answers with those in the Answer Key. There is no one right answer to any of the questions. Also, the Answer Key gives fuller responses to some of the 7 parts of the exercise than you would be expected to give before having studied the unit.

In the table below, check the estimates you make of your degree of mastery of each part of the Pre-Assessment Exercise. Check HIGH if you judge your answer to be right on target and in adequate detail. Check MODERATE if you judge your answer to be good but lacking some points needed for a fully adequate answer. Check LOW if you find your answer to be inappropriate or very incomplete.

ITEM NO.	TOPIC IN PLANNING FOR DIFFUSION	LEVEL OF MASTERY SHOWN		
		HIGH	MODERATE	LOW
1.	Giving examples of 3 types of change	____	____	____
2.	Distinguishing system-wide from local needs	____	____	____
3.	Stating problems of articulation across levels	____	____	____
4.	Giving reasons for diffusion failure of pilot program	____	____	____
5.	Listing advantages of pilot approach	____	____	____
6.	Listing examples of initial system-wide approach	____	____	____
7.	Stating advantages of pilot + system-wide approach	____	____	____
8.	Illustrating advantages of theme approach	____	____	____
9.	Comparing home-made and imported programs	____	____	____

Now that you have indicated your level of mastery of these topics, look at the following table which lists all the objectives and indicate for each whether you need only to study it for review purposes or to study it carefully. Your

estimates of your degree of mastery of the preceding abbreviated list of objective topics should help you in checking the following list of objectives.

UNIT OBJECTIVES	REVIEW ONLY	STUDY CAREFULLY
1. Define diffusion within a school system and indicate patterns in which changes can spread.	____	____
2. Illustrate needs for change that usually are system-wide, and others that may be confined to one school.	____	____
3. Justify the spread of change programs across levels to meet the needs of students as they progress through the grades.	____	____
4. Identify reasons why a successful pilot program may fail to spread on a system-wide basis.	____	____
5. State the conditions under which a pilot test approach to a change program is indicated and state its advantages.	____	____
6. State the conditions under which an initial system-wide adoption of a change program is indicated and state its advantages.	____	____
7. Demonstrate the advantages of combining an initial pilot project with system-wide participation in planning toward eventual diffusion.	____	____
8. Define and illustrate the theme approach to system-wide change and state its advantages.	____	____
9. List the advantages of a home-made product or program for system-wide diffusion.	____	____
10. Critique a local change strategy and outline a superior strategy for meeting system needs.	____	____
11. Outline a plan for introducing and diffusing an innovative program system-wide.	____	____

(It is expected that Objectives 10 and 11 will require intensive study because they are based on the material you will have learned from the complete unit.)

2. Study procedure. In studying this unit, keep in mind that you will achieve maximum gain by considering the objectives in the order in which they appear, since each objective assumes a certain level of understanding based on the previous ones. However, according to your mastery estimates, some objectives will require intensive study, while others need only to be reviewed.

You may wish to study all or part of this unit with one or more other students. If you have an instructor, he may decide to work with you individually or in a group session. And, of course, you could study the unit entirely on your own, since it has been purposely designed for self-directed study.

Objective 1. Define diffusion within a school system and indicate patterns in which changes can spread.

Definition of within-system diffusion

The diffusion of educational innovations usually refers to the spread of their adoption on a regional or national level among school systems. Within-system diffusion is the spread of the adoption of change within a school system.

Patterns of diffusion

While some changes can be introduced initially on a district-wide basis (for example, a change in administrative organization that gives increased autonomy to building principals), most changes spread -- if they do spread -- on a more gradual basis.

Five general patterns of diffusion within a district can be distinguished (although they often overlap). Changes can spread, for example, (1) from classroom to classroom; (2) from school to school; (3) from grade to grade; (4) from one curriculum area to another; (5) from one level to another (as from elementary to secondary.)

Any type of change can diffuse within a school system, whether involving innovations recently introduced within the district or already-existing features of the system's organization or program. For example, diffusion may involve:

1. The spread of changes representing a general theme such as individualized instruction or community involvement in schools. Here the changes made are apt to differ significantly from school to school since the purpose is not to spread the adoption of particular practices or products but rather to permit each school to undertake changes it elects to represent the chosen theme.

2. The spread of adoption of a particular instructional system. Examples would include the Harvard model of team teaching and Individually Prescribed

Instruction (IPI) Mathematics.

3. The spread of adoption of particular instructional products. Examples of such products would include overhead projectors, and the Physical Sciences Study Committee (PSSC) physics curriculum.

Exercise 1

It is likely that you can list a number of examples of each of the three types of change just identified. Exercise 1 asks you to indicate to which category you would assign a series of examples. You are also asked to add other appropriate illustrations which may occur to you. Keep in mind the fact that the distinctions among themes, systems, and products may not always be clear-cut, and that some items might appropriately fall in more than one category. In general, remember that a theme usually represents a broad educational approach which is likely to pervade the whole district; an instructional system generally requires a change in teaching methods and/or classroom organization; an instructional product usually can be added to the basic instructional program without requiring major changes.

Now turn to Exercise 1 and classify the examples listed.

EXERCISE 1 - WORKSHEET

Types of Change That Can Diffuse Within a School System

Directions: For each of the examples listed below check whether in your opinion it represents a theme, an instructional system, or an instructional product.

EXAMPLE	THEME	INSTRUCTIONAL SYSTEM	INSTRUCTIONAL PRODUCT
Filmstrips	___	___	___
Cooperative teaching	___	___	___
Cuisenaire rods	___	___	___
Planned Learning According to Needs (PLAN)	___	___	___
Student involvement in decision making	___	___	___
Educational television	___	___	___
The Wisconsin Individually Guided Education Model (IGE)	___	___	___
Man - A Course of Study	___	___	___
The Montessori Plan	___	___	___
Computer Assisted Instruction (CAI)	___	___	___
Elementary Science Study (ESS)	___	___	___
The California Test of Basic Skills	___	___	___

Perhaps you can think of additional examples of these 3 categories. If so, list them below:

THEME _____

_____

INSTRUCTIONAL SYSTEM _____

_____

INSTRUCTIONAL PRODUCT _____

_____

Reminder: When you have completed this exercise check your work against the Answer Key.

EXERCISE 1 - ANSWER KEY

Types of Change That Can Diffuse Within a School System

EXAMPLE	THEME	INSTRUCTIONAL SYSTEM	INSTRUCTIONAL PRODUCT
Filmstrips			✓
Cooperative teaching	✓		
Cuisenaire rods			✓
Planned Learning According to Needs (PLAN)		✓	
Student involvement in decision making	✓		
Educational television	✓		
The Wisconsin Individually Guided Education Model (IGE)		✓	
Man - A Course of Study			✓
The Montessori Plan		✓	
Computer Assisted Instruction (CAI)	✓		
Elementary Science Study (ESS)			✓
The California Test of Basic Skills			✓

Additional examples might include:

THEME: Ungraded progress; open classrooms; affective development

INSTRUCTIONAL SYSTEM: Individually Prescribed Instruction (IPI); the Norwalk, Conn. Team Teaching Plan; the Winnetka Plan

INSTRUCTIONAL PRODUCT: Videotapes; simulated games; Achievement Competence Training Skills package (ACT).

As has been previously noted, these categories are not rigid, and represent some overlap. This exercise has been designed as a guideline for recognizing general differences among levels of change programs. While you may not agree with the specific categorization of each item, you may have found it helpful to consider this type of program differentiation.

Objective 2. Illustrate needs for change that usually are system-wide and others that may be confined to one school.

Comparison of system-wide with localized needs

The justification for system-wide diffusion of educational change lies in the fact that identified needs for change normally exist in schools throughout the district. However, there are some instances when such needs are restricted to one school or a fraction of schools in a district. To show that most needs for change are system-wide, we should examine major types of needs existing within school systems.

An important point is that very often a need for change first appears in one school yet is actually a reflection of a system-wide need. For example, intergroup conflict may first erupt in one secondary school in a district. Upon study of the intergroup situation in other district schools, it is apt to be found that the seeds of conflict exist in those schools also and that a district-wide solution for intergroup problems is required.

Exercise 2

Exercise 2 offers you some examples of needs for change that usually are system-wide and some that are apt to be localized within the school system. You are asked to give additional examples of your own in each of the two categories.

No answer key is provided for Exercise 2 because your examples can be checked by comparing them with the examples given.

EXERCISE 2 - WORKSHEET

Examples of System-wide and Localized Needs

Directions: Using the examples as a guide, list whatever needs you can think of in the two categories. (While localized needs are listed separately, keep in mind that these may also be examined as symptoms of underlying problems existing on a system-wide level.)

SYSTEM-WIDE NEEDS

Examples Given	Your Examples
Reading skills improvement	
School-community relations	
Staff in-service training	
Drug education	

LOCALIZED NEEDS

Examples Given	Your Examples
Interpersonal conflicts in a school	
Structural problems of specific buildings	
Vandalism confined to one school	
Weakness in one teacher team	

Objective 3. Justify the spread of change programs across levels to meet the needs of students as they progress through the grades.

Justification of change programs across levels

The problem of vertical articulation from one level of instruction to another exists for all students. If change programs are introduced in certain grades or on certain levels andn ot others, serious continuity problems for students may result. Program consistency from level to level is thus an important factor.

Needs at one level often occur at all levels (i.e. acquisition of basic language skills) and require to be met at all levels. One chief reason for individualized or continuous progress programs is that they enable students to "hook into" a program at the proper point when moving to another grade or school.

Examples of change programs which often are introduced at some grade levels and not others and thus cause articulation problems include:

Open classroom plans

Team teaching

Nongraded grouping

Use of particular reading programs or resources

Individualized instruction

Perhaps you can think of other examples. The important thing here is to recognize that the diffusion process should take into account the difficulties which students may encounter when moving to another level after exposure to a particular program on one level and then encountering a different kind of program. An example of this problem in one school district is given in the following illustration.

The Adoption of the ISCS Science Program at the Junior High School Level

The Pine Grove suburban school district consists of approximately 5800 students and includes six elementary schools, two junior high schools (grades 7-9) and one high school. In 1970, after a series of exploratory steps, and in-service training of selected staff, it was decided by the Science Department Chairman and the two junior high school principals, to adopt the individualized Science Curriculum Study (ISCS) materials on a pilot basis in selected classes in both schools.

ISCS is an individualized science curriculum for grades 7-9 developed at Florida State University and published as a package of workbooks and materials by Silver-Burdette. In the program, students work individually or in small groups and progress at their own speed, taking tests at their own initiative when they feel they have mastered a given level. Students also help determine their own grades.

Evaluation of the program after its first pilot year revealed enthusiastic response from both students and teachers. Accordingly, in-service training was provided for additional staff, and the ISCS curriculum was extended to all 7th and 8th grade science classes, and, in a modified version, to grade 9. Thus, over the past three years, all junior high school students in the district have participated to some extent in the ISCS program.

When these students enter high school in 10th grade, they are returned to a more traditional science program which lacks the independent study aspects of the ISCS. For many students, the transition has proved difficult. (For others, the transition from traditional science classes to ISCS was equally difficult.) Accordingly, the Department Chairman is currently analyzing the transition problem, with particular attention to those students who have had difficulty in either the individualized or the traditional curriculum. This

concern with the articulation problem may result in creating materials similar to the ISCS approach for both the elementary and high school levels.

This has been one illustraton of the manner in which an articulation problem can develop when a change program is introduced only at certain levels. Can you think of examples in which other types of innovations are apt to produce articulation difficulties? If so, describe them briefly below.

Your illustrations:

Objective 4. Identify reasons why a successful pilot program may fail to spread on a system-wide basis.

Sometimes a successful pilot program may fail to spread on a system-wide basis, even though it was initially intended for diffusion. This may happen for any of the following reasons, or others.

Inappropriateness of program to other schools, levels, etc. Sometimes, particularly in a large school district, schools may have distinct characteristics which make a certain pilot program (i.e. teaching of English as a second language in a school with an unusually large proportion of Spanish speaking students) appropriate to some schools but not to others. An open campus plan may be suited to the secondary levels but not to the elementary. Thus, certain experimental programs which work out well in one or more schools may not be appropriate for district-wide diffusion.

High costs of diffusion. School boards may be reluctant to budget money for innovative programs on a district-wide level. This is particularly true when (1) the materials required for the program are costly; (2) the program requires considerable expense in in-service training for staff; (3) the pilot program was initially funded by outside sources (i.e. Title III), but the school district is asked to pick up the tab for diffusion. It may take several years of a pilot program's demonstrated success before the costs of diffusion become acceptable to the Board or the community.

Priority differences among schools on program adoption. While a particular change program may receive high priority to meet the major needs of one school or grade level, it may not seem of great importance at other schools or levels. For example, while one elementary school drawing from a particular neighborhood may give high priority to an innovative remedial reading program, another school may feel that an individualized science program has higher

priority for its particular students. Thus, a pilot program successful in one school may not be diffused because it does not meet priority needs of other schools.

Insufficient central staff commitment. If the Superintendent and his staff lack enthusiasm for the project, it is unlikely to spread through the district. It is essential that the central staff exhibit leadership in the diffusion effort, and that building principals are also committed to the spread of the change program. If this is not true, the diffusion process is unlikely since strong central leadership is necessary to "sell" the program to the Board, the community, and the teaching staff.

Lack of a comprehensive diffusion strategy. Planning ahead is crucial for a successful diffusion process. While the program is being planned for the initial pilot stage, the administration should be making further plans for its eventual diffusion. This involves a determination of phasing stages, the spread of information on the program both to staff and community, involvement of selected staff from all schools in the initial planning stages, and in-service training for handling the change program. Lack of communication about the program on a district-wide basis is one reason for diffusion failure.

Reluctance of schools to adopt a program specifically identified with a particular school. If a pilot program is tried out for a period of time in a given school, and diffusion plans are not communicated, building principals may feel that the program is "someone else's" and be unable to identify with it in terms of their own schools. Such reluctance may also be tied in with priority differences, and poor communication about the program through the district.

Reluctance of teachers to accept change programs. While the innovation may have been successfully "sold" to teachers at one school or grade level, others may be extremely reluctant to take on the major instructional method changes required by the new program. Other teachers may find the underlying philosophy of the innovation unacceptable. Such resistance, particularly in the presence of a strong teachers' association, may make the diffusion process extremely difficult.

Changeover of personnel. Personnel changes, particularly at the central office and building principal levels may result in a shift in philosophy or sense of priorities which may halt the diffusion process or eliminate the pilot program entirely. Change in school board membership may have the same effect.

Exercise 3

It is important for you to be able to identify the reasons for diffusion failure. Exercise 3 describes pilot programs that failed to spread throughout two school systems. After reading these examples, turn to Exercise 3 - Worksheet and list some of the reasons for diffusion failure in one of these systems. As an option, you may choose instead to describe a program that you know about that failed to diffuse, and identify the reasons for the failure.

Example 1. In 1961, in the Pennurban School District, a central committee representing the 9 elementary school principals began to plan for a Continuous Progress Primary which was essentially an ungraded program replacing grades 1-3. The idea, which included an emphasis on individualized instruction, was to permit flexibility in the rate at which students moved through the first 8 years of school.

Three principals, who were particularly enthusiastic about the program, agreed to pilot it in their schools for one year. After the initial year, a survey of parents, teachers and principals of the participating schools indicated a generally positive attitude toward the program. The evaluation report was submitted by the 3 principals to the Superintendent, who subsequently announced that the plan was to be adopted by all primary schools in the district. However, implementation turned out to be minimal. There had been no teacher involvement in formulating the plan in the 3 schools, several principals lacked a philosophical acceptance of the project, and since no central office personnel had been specifically designated to organize or promote the program, the whole thing eventually degenerated to a "paper project". After several years, even the 3 schools which had successfully initiated Continuous Progress Primary began to drift away from the ungraded system.

Example 2. In 1966, through Title III funding, an Individually Prescribed Instruction (IPI) math program was introduced in the Burton Elementary School in a suburban district. Funding was continued through 1971, during which time the program was successfully established in all grades (K-6) at Burton School. In 1972-73 the funding of the program was taken over by the district, but was discontinued in the fall of 1973 because of the high costs of the program, coupled with the district's policy to provide the same level of education in all schools. Although 10 of the 13 elementary schools in the district expressed interest in implementing IPI, the School Board felt it could not afford to diffuse the program. Accordingly, IPI was also dropped at the Burton School despite the feelings of both parents and teachers that the program had been extremely successful.

EXERCISE 3 - WORKSHEET

Reasons for Diffusion Failure of a Successful Pilot Program

Directions: Choose one of the examples given, and identify several reasons why the initially successful pilot program failed to spread throughout the district. As an option, describe a diffusion failure with which you are familiar, and identify reasons for failure. Use the next page for this.

EXAMPLE 1. REASONS FOR DIFFUSION FAILURE:

EXAMPLE 2. REASONS FOR DIFFUSION FAILURE:

Reminder: When you have completed this exercise, check your work against the Answer Key.

EXERCISE 3 - WORKSHEET (Cont'd).

YOUR OWN EXAMPLE

DESCRIPTION:

REASONS FOR DIFFUSION FAILURE:

EXERCISE 3 - ANSWER KEY

Explanation:

While there are no "right" and "wrong" answers for Exercise 3, there are a number of reasons for diffusion failure which should come to your mind after reading Examples 1 and 2. Here are a few such ideas: you may wish to add some of your own. (If you have used your own example in Exercise 3, you may find some of these points relevant to the reasons for failure that you have already identified.)

EXAMPLE 1. REASONS FOR DIFFUSION FAILURE:

Insufficient involvement of total staff in initial planning
Lack of staff commitment to or involvement in plans for future diffusion
No community involvement in the planning process
No teacher involvement in the planning process
Poor promotion of the goals of the program; lack of communication
No central office direction toward organizing or promulgating the program

ADDITIONAL REASONS:

EXAMPLE 2. REASONS FOR DIFFUSION FAILURE:

Insufficient planning for future costs
Inadequate "selling" of the virtues of the program to the chool oard
Lack of recognition that the program might be more appropriate for some schools than others
Failure to attempt adapting a modified version of the program that might reduce its costs

ADDITIONAL REASONS:

Objective 5. State the conditions under which a pilot test approach to a change program is indicated and state its advantages.

Most change programs are introduced on a pilot basis for the reasons and under the conditions described below. While many of these points may seem self-evident, it is important to be able to analyze the needs and limitations of a given school system before deciding whether an innovative program should be initiated on a broad or a limited basis.

The particular conditions that suggest the need for an initial pilot test of a given innovation include:

Changes which have not already been tested and found effective in a similar school district

Changes which might incite community, staff, or student resistance if introduced on a wide scale

Changes which do not initially appeal to more than a few staff members

Changes which would require considerable cost, training, re-staffing, reorganization, etc. if introduced on a wide scale

The advantages of a pilot test initiation of a change program include the following:

The concentration of limited resources to give the best chance for the program to become effective

The opportunity to evaluate the program on a limited basis

The provision of a training site for teachers who might subsequently be involved in the diffusion process

The development of administrative capabilities for subsequent district-wide implementation

Provision of a demonstration project for other schools in the district

Through the concentration of limited resources, the possibility of introducing for comparison 2 or more similar programs

Relative ease of returning to original methods if the program fails

Relative ease of gaining support for a limited program from school board and taxpayers

Exercise 4

To help you identify the conditions and advantages of pilot programs, the following 2 examples are provided. Read them both, and then choose one to answer the questions on Exercise 4 - Worksheet.

Example 1. The chairman of the Physical Education and Health Department of the East Radford School District approached the superintendent after having attended a statewide conference on the need for and availability of sex education programs on the elementary school level. The department chairman was particularly impressed with a packaged program of films, videotapes, slides, models and workbooks which could be purchased for use in grades K-6.

The superintendent was also favorably inclined toward the program and decided to purchase it for use in 2 of the 10 elementary schools in the district. Before the pilot project could get under way, however, it was necessary to do a comprehensive "selling" job to both parents and teachers. There was considerable parental resistance to the idea, especially among Catholic groups. The department chairman, the superintendent, and other staff members who were committed to the project held a number of meetings with PTA's and other parent groups to explain the materials to be used and to show the films which were planned for the different grade levels.

The principals of the 2 schools chosen for the pilot project were in favor of the program, and, in fact, their enthusiasm as demonstrated at an initial meeting of all elementary principals led to the choice of their schools as the pilot sites. Principals, together with the department chairman and the elementary curriculum coordinator developed an inservice summer workshop for K-6 teachers in the pilot schools so that they would be able to deal comfortably with the program. Although in these particular schools the health program was under the aegis of the physical education

staff, the nature of the sex education package was such that much of its material could be utilized in both science and social studies curricula by regular classroom teachers.

After a year of utilizing the program an evaluation survey of teacher, student and parental reaction was generally favorable. It was therefore decided by a committee of teachers, parents, and administrators to diffuse the program gradually throughout all the elementary schools, with full K-6 implementation to be in effect by the end of the following year. Inservice training was provided in summer workshops for all elementary school teachers. Eventually, although the program was adopted in all elementary schools, individual adaptations of the original package were made to suit the needs of particular schools and classes. While all schools are not now handling the program in exactly the same way, the diffusion process from the initial pilot program has been successfully effected.

Example 2. In 1971 a pilot program in integrating suburban and inner city schools was begun in the North Brampton suburban school district. This district, whose population is almost entirely white, is adjacent to a city of approximately 250,000, 30% of whom are black. At the recommendation of the State Human Relations Commission, a pilot program was begun in 4 of the 8 elementary schools in North Brampton. The project involved busing a random group of volunteer inner-city black children to the 4 elementary schools. At the initiation of the project there was considerable public resistance on the part of both black and white parents. This resistance was strongly communicated at public meetings with the school board. However, the board nonetheless voted 7-0 in favor of attempting the pilot program. After the program had been in existence for a year, evaluation showed that the integrated black students were outperforming their inner city peers in the

basic skills, and in many cases were outperforming their white classmates as well. The program has since been adopted by all elementary schools in the district. However, the number of inner city children who can be accommodated is necessarily limited by the North Brampton requirement that classes be kept to a 1-23 ratio.

EXERCISE 4 - WORKSHEET

The Conditions and Advantages of the Pilot Program Approach

Directions: Using the example you have chosen, write your answers to the appropriate questions below.

EXAMPLE 1. From the list of conditions given on page 24, plus any others that have occurred to you, indicate why you feel the situation in East Radford was appropriate for a pilot test program.

What advantages do you see to using the pilot approach in this situation as opposed to initiating the sex education program on a system-wide basis? Refer to the list of advantages on page 24. Add any others that may occur to you.

EXERCISE 4 - WORKSHEET (Cont'd)

EXAMPLE 2. Referring to page 24, state the conditions which you feel made the North Brampton integration experiment appropriate for a pilot test? Add other conditions which occur to you.

What advantages do you see to using the pilot approach in this situation as opposed to initiating the integration program on a system-wide basis? Refer to page 24, and add your own ideas.

Reminder: When you have completed this exercise, check your work against the Answer Key.

EXERCISE 4 - ANSWER KEY

The Conditions Appropriate to and the Advantages of a Pilot Program

EXAMPLE 1.

Conditions: (These are some suggestions; you may have thought of others.)

Sex education programs have not been in existence long enough on the elementary level to justify their introduction on a district-wide basis.

Such a program is bound to encounter both staff and community resistance.

All staff members might not feel comfortable at handling such material.

Advantages: (These are also suggestions; you may have thought of others.)

The purchase of only a limited number of "health packages" plus the inservice training required for only a few staff members represents minimal cost to the district.

There would be an opportunity to evaluate the program, through staff, student, and parent reaction on a limited basis.

A training or observation site would be provided for teachers who might later become involved in the program.

Community and school board resistance might be better overcome by introducing the program on a limited basis.

EXAMPLE 2.

Conditions: (Suggestions to which you may add your own.)

Integration of black and white students has not always proved to be educationally advantageous.

Busing for integration purpose is bound to create community resistance.

Provision of a demonstration project (if successful) would be helpful to other districts faced with similar problems.

Advantages: (Suggestions to which your own may be added.)

The initial cost of busing was held to a minimum.

Only younger children (less likely to cause interracial disturbance) were involved in the pilot project.

A comparison could be made between integrated and non-integrated schools in the same district.

Resistance of parents and school board was minimal considering the small number of children initially involved.

Objective 6. State the conditions under which an initial system-wide adoption of a change program is indicated and state its advantages.

Although the pilot approach studied under Objective 5 has much to recommend it under many conditions, it may not always be the most effective way to introduce a change program.

Conditions favoring the introduction of a particular innovation on a system-wide basis include:

The program has proved successful in similar school districts.

There is evidence that the program is one which will have immediate usefulness in meeting needs throughout the district.

The program can be initiated on a system-wide basis at reasonable cost.

The characteristics of the innovation permit it to be introduced with minimal needs for reorganization throughout the district.

The program has widespread support from central office staff, school board and community.

There is a favorable attitude toward the program among building principals and teachers.

Assuming that the above conditions have been met, the advantages of system-wide initiation of a change program include:

In contrast to a pilot program, which often involves only a few staff members, the system-wide approach permits many district personnel to become involved in choosing and planning the innovation. This permits a sense of identification with the program and commitment to goals which can help ensure its success.

The system-wide initiation removes the suspicion of favoritism toward certain schools (which may occur in a pilot approach), and promotes the belief that resources are distributed as equally as possible throughout the district.

Since innovative programs can often be adapted to a variety of administrative and instructional personalities and techniques, system-wide innovation takes immediate account of these differences and permits adaptation of the program to accommodate them.

Local tax effort may be maximized if the program can be shown to have the largest possible impact and thus represent an efficient use of funds.

Since pilot phasing takes several years during which the innovation is denied to many students, there is considerable time saving in system-wide initiation.

An example follows to illustrate some of the conditions and advantages of initiating a change program on a system-wide basis.

Exercise 5

The following example will illustrate the success of an initial system-wide innovation. After you have read it, turn to Exercise 5 - Worksheet and check the reasons why you feel this program met the conditions and advantages of district-wide initiative.

Example of the Initial System-Wide Diffusion of a Program

An example of a system-wide introduction of an instructional program occurred in Throckmorton County, where, in 1968, a group of elementary school principals recognized that the curriculum created for the "average" child was inappropriate to many of their students. Children were being paced at a predetermined educational pattern, but at best learning was sporadic. Measures of student and teacher performance lacked specificity, and accountability was difficult to establish. Pressures from the community demanded a change.

In a desire to break away from past methods, school administrators, department heads, selected teachers, and a community advisory group appointed by the school board began studying programs designed to accommodate a wide range of individual differences among children. An intensive consideration of curricular options led to the eventual choice of Individually Prescribed Instruction (IPI).

IPI is a total elementary school program including teacher, administrator, and aide training, procedures of diagnosing student achievement of mastery

of a given subject area, individual evaluation and guidance of each pupil, and a variety of instructional materials. Although it is a relatively expensive program in terms of the materials required, its advantages have been thoroughly demonstrated in many schools.

Throckmorton County School District decided to implement IPI on a system-wide scale, which included all five elementary schools. The program proved successful, and during the 1970-71 school year the IPI Primary Reading and Spelling programs were added to the curriculum. The general reaction to the program has been favorable. The teachers appear more conscious of individual differences among students and are better able to deal with them. The program presents a practical, useable learning sequence. The principal's role in IPI enables him to help with special learning problems without making teachers feel inadequate. Students appear to have developed a more positive concept toward school and toward their own successes. Feedback on the program is provided through pretests and posttests and through a profile of the student's mastery level. Parents receive profile sheets indicating the student's mastery level regardless of his class standing, thus eliminating the stigma of the letter grade.

Parents have been sufficiently pleased with the results of the program to indicate to the school board that they are in favor of a continued budgeting of funds for this purpose.

EXERCISE 5 - WORKSHEET

Reasons and Conditions Justifying a System-Wide Introduction

Directions: Check the reasons and conditions which you feel justified the introduction of IPI in all elementary schools in Throckmorton County School District on a system-wide basis.

	(check here)
1. A change program was demanded by the whole community	_____
2. IPI is an individualized program	_____
3. Responsibilities for choosing the program were widely distributed	_____
4. IPI helps students evaluate themselves	_____
5. The principal works closely with the students	_____
6. Wide public support resulted from the knowledge that the program had proved effectiveness	_____
7. The school board believes in the economic worth of the program	_____
8. IPI helps socially deprived students determine their own pace and therefore provides heterogeneous grouping	_____
9. Several principals were especially enthusiastic about choosing this particular program	_____
10. IPI eliminates letter grades	_____

Reminder: When you have completed this exercise, check your work against the Exercise 5 - Answer Key.

EXERCISE 5 - ANSWER KEY

Reasons and Conditions Justifying a System-Wide Introduction

All the statements on Exercise 5 - Worksheet are true, but some seem more appropriate than others in justifying the use of the system-wide approach illustrated. Statements 1, 3, 6, and 7 would seem to be the most cogent arguments in this particular example for choosing a system-wide rather than a pilot approach. The major point of this exercise has been to point out the possible advantages of the system-wide initiation of a change program and to help you identify them as appropriate in certain situations and under certain conditions.

Objective 7. Demonstrate the advantages of combining an initial pilot project with system-wide participation in planning toward eventual diffusion.

Objectives 5 and 6 have addressed themselves to the advantages of introducing change programs either through a pilot project (with the aim of eventual diffusion) or through an initial system-wide adoption.

There appear to be merits to both alternatives. As you will remember, advantages of the initial pilot project approach included: concentration of resources; opportunity for evaluation on a limited basis; provision of a demonstration site; relative ease of gaining monetary support for a limited program.

Some advantages of the initial system-wide adoption of a change program included: sense of involvement and commitment of personnel throughout the district; adaptation to a variety of administrative and instructional techniques; maximization of tax effort because of wider impact; time-saving compared to pilot phasing.

Since there appear to be merits to both alternatives, very often the best solution may lie in a combination of both methods. Such a combination would occur through involvement of staff throughout the system in choosing and planning a pilot program, and continuous communication about the progress of the program to staff, school board, and community.

Assuming a program has been judged to have potential value for system-wide use, and assuming the intent to foster eventual system-wide adoption, it is logical to have some level of system-wide involvement from the beginning, even when pilot testing is to be utilized. In other words, the pilot test would receive reinforcement by attaining system-wide involvement from its inception.

Conditions favoring a combination of pilot study and system-wide involvement include:

The existence of a major educational trend which is of broad interest to the staff and/or the community. Such trends might include (1) curriculum changes such as the introduction of FLES, ISCS, IPI or other innovative programs; (2) organizational changes such as team teaching, open classrooms, year-round schools; or (3) technological changes such as the use of computer-assisted instruction, educational TV, and language labs. The main point here is that the innovation is of widespread interest, so that administration, teachers and community are all interested in testing it out on a pilot basis, and all want to be involved in its planning stages.

The existence of a major concern which has developed within a district (for example, poor performance in basic skills, disturbance in race relations, high absentee rate of either students or teachers, widespread vandalism, or widespread drug use.) In all of these cases, the whole system may be involved and/or concerned, but may wish to try out a pilot program to test its effectiveness in dealing with such problems.

In occasional instances, outside funding may be offered to a school district which can evolve an effective change program. In such an instance, the whole district may be involved in the decision-making process as to how best to expend the funds, and in the development of a pilot program to demonstrate justification for such expenditure.

Advantages of a combined pilot study and system-wide involvement include the following:

The increased interest in and involvement of personnel throughout the district in all aspects of pilot project planning.

The increased probability of choosing various pilot sites, thus enabling not only the best possible choices, but a basis of comparison among schools in implementing the pilot program.

The shared sense of "ownership" of the project which not only makes for more successful diffusion, but also avoids all suggestions of administrative fiat or favoritism.

The opportunity for the whole staff to observe and learn from the pilot programs.

The following example illustrates the combination approach to the diffusion of a program in a selected school district.

Exercise 6

After reading the example, list all the conditions and advantages you think of which made this particular change program effectively expedited through a combination of pilot project and district-wide adoption. Exercise 6 - Worksheet provides space for you to list these conditions and advantages.

The Open Learning Environment Program at Plattsville

An illustration of the combined approach to diffusion is the Open Learning Environment program (OLE) which was introduced in the Plattsville School District in 1969. Plattsville is an urban district with 60 elementary schools. The original decision to implement an innovative program for Head-start students was made by the ESEA Title I Committee, the Director of Compensatory Education, and the Plattsville Board of Education. Dr. Delia Jones was hired as Associate Director of Early Childhood Programs.

As a first step toward program initiation, the superintendent called a meeting of the principals of 37 elementary schools rated as showing low achievement. Dr. Jones described the program to the principals, after which five of them decided to try it out in their schools. In September, 1969 the program was initiated in the five pilot schools at the K-1 level, funded both by Title I and district moneys, and under the leadership of Dr. Jones, with the full support of the superintendent.

Basically, OLE, as a version of the open classroom model, reflects the theory that students learn from sampling their environment, constructing concepts and expectations of their world, and continually testing and revising their conceptual systems. It is viewed as a dynamic program, sensitive to human needs, and future-oriented. There is no single prototype for an OLE classroom or school; rather, there are many variations reflecting the individuality of the persons involved.

The structural principles of the program include such features as the following:

The need to design a program, select appropriate materials, and utilize trained personnel who can handle the program effectively.

The importance of inservice training; while any teacher should be able to handle the program, it cannot realistically be achieved without adequate training.

The need for continual help and guidance of young children in the development of adequate coping skills for the shift from passive to active learning in which students are responsible for their own achievement.

Mastery of basic literacy and math skills is mandatory. The program includes learning centers (language arts, mathematics, music, etc.), a rich variety of materials, small group lessons, and individual work activities.

Dr. Jones and the principals of the pilot schools chose team leaders on the basis of their teaching experience. Principals, in consultation with Dr. Jones, hired community aides to help in the classrooms. Monthly inservice training workshops began for participating teachers. An outside evaluation consultant was hired on a three-year basis.

In the meantime, Dr. Jones continued recruiting for other schools in which to initiate OLE. In doing this, she prepared a series of newsletters describing the goals and progress of the program to all elementary principals, and included a summary of the program in several issues of the district's monthly newsletter for community distribution. She also held a series of meetings with principals and other interested staff members, and gave a slide presentation of the program to the school board at a public meeting.

In 1970, after the program had existed for a year in the five pilot schools, it was found that one school in particular had a young, enthusiastic staff and a cooperative principal all of whom adapted exceptionally well to the program. This school became the informal "model" or demonstration school for OLE. Interest in open classroom methods began to grow throughout the district, and there were numerous requests from school personnel and parents to visit OLE classrooms.

Since the program was proving successful, it was planned to add another grade level each year and to bring other schools into the program.

The easy accessibility of and continued communication from the administrators of OLE to teachers, central office, school board, and community maintained a positive attitude toward the program throughout the district.

Although the pilot schools were chosen for their low achievement, the positive publicity given the OLE program resulted in a number of transfers to these schools of students from "high achievement" schools which were not yet using the program. Positive newspaper coverage was also helpful in calling attention to OLE. Overall, community reaction to the program was so favorable that continued diffusion was expedited throughout the system.

In 1970-71 OLE expanded to 12 more elementary schools, and in the following year to another 8. This expansion was made possible largely through the use of Title III funds, and was instigated by parental requests to extend the program to other schools. Currently (1974) OLE is in use in 26 public schools and has been expanded to include grades K-5. Throughout the expansion period, inservice workshops for teachers were regularly conducted, and communication throughout the district was actively continued.

The Plattsville District has recently adopted a middle school system, and is now designating its schools as K-5, 6-8, and 9-12. To provide a continuum (articulation) of the open classroom approach, the middle schools are now also being developed along OLE lines. This is regarded as a transitional phase between the child-centered elementary program and the subject-centered secondary approach. Task forces of teachers, administrators, and community members were formed to help develop the middle school program. These task forces were coordinated by Dr. Jones.

Although it is still not fully in system-wide use, OLE is making itself felt through teacher recognition of its methodology. Some teachers begin using open classroom methods even before OLE is formally introduced to their grade level. Others are taking university courses in the method or reading about it on their own. These practices have been encouraged and supported by the central administration.

The central concern of this unit is the manner in which the diffusion process can be achieved. In the case of OLE the following points are considered crucial to the successful system-wide diffusion of the pilot program:

1. Because federal dollars were available to poverty areas, the program was presented to principals in these areas, and to the community via the PTA and other agencies. After a presentation of slides, tapes, etc., and visits to other schools using OLE, the principals agreed to try the project. This often occurred after consultation with their staffs, but the principal was the chief decision-maker. The main point is the voluntary acceptance of OLE; enforcement by the central office would have been antithetical to the cooperation and enthusiasm required by the very nature of the program.
2. Another diffusion strategy came from the Plattsville Council for Public Education, a parent group pressuring for OLE in their schools. This group was influential in convincing principals to accept the program.
3. OLE's broad support base has been crucial to implementation and diffusion. Favorable press coverage, increasing interest in educational alternatives and program flexibility, and the success of the pilot projects all broadened the support base. The fact that OLE has now survived 4 superintendents is testimony to its widespread support.

In commenting on the diffusion effort, Dr. Jones felt it had been successful, but mentioned the following points which she had learned throughout the experience:

1. The building of relationships among administration, staff, and community should be a first step in the planning process.
2. It is important from the very beginning to implant the idea that a long period of time is needed for real change to occur; therefore, strong on-going support is necessary.
3. Getting enough money to expand the program is always a problem. Publicity and communication are crucial to achieving continued local funding.
4. Moving an innovation into a school too quickly is a mistake because the staff is asked to do too much too soon. Gradual diffusion (one grade at a time) and continued teacher orientation allows for smoother transition.
5. A built-in evaluation component is crucial because it requires participants to follow program guidelines and limit changes. On-going assessment is essential for feedback about the program's effects throughout the district.
6. Better ways are needed to receive input from parents and community. Particularly in poverty areas it is difficult to find parents with time to spend in school involvement. The teacher unions also tend to discourage parental involvement either as aides or participants in the planning process. Here again, positive communication to both parents and teachers not actively involved in the program is a vital procedure for diffusion success.

EXERCISE 6 - WORKSHEET

Conditions and Advantages of Combining a Pilot Project with District-Wide Involvement

Directions: List as many conditions and advantages as you can, as illustrated in the preceding example, which justified the combining of a pilot program with district-wide participation.

Conditions:

Advantages:

Reminder: When you have completed this exercise, check your work against the Exercise 6 - Answer Key.

EXERCISE 6 - ANSWER KEY

Conditions and Advantages of Combining a Pilot Project with System-Wide Participation

Conditions: (These are some suggestions; you may have thought of others.)

The open classroom idea is a major educational trend of widespread interest.

There was a system-wide need for such a program in the Plattsville School District as indicated by the large number of elementary schools designated as "low achievement."

Funds from Title I were available to implement appropriate innovative programs on a system-wide level.

The OLE program had been shown to be one that is adaptable to many different schools, classrooms, teachers and students.

Advantages: (These are also suggestions to which you may add more.)

Involvement from the beginning of the superintendent, principals, team leaders, teachers, and community aides.

The use of five schools to initiate the program, thus providing a basis for comparison from which one school was eventually chosen as a "demonstration" model.

The scope of the pilot project provided considerable material both for evaluation and for exposing the program to a broad spectrum of the community.

Publicity about the program could find its sources in a number of schools.

Observation of the program was possible for a great many parents and teachers. This prepared some teachers to adapt the OLE model to their own classrooms.

Objective 8. Define and illustrate the theme approach to system-wide change and state its advantages.

In Objective 1 we discussed the various patterns of change which can occur on a system-wide basis. One such pattern, which lends itself particularly well to diffusion, is the theme approach. Examples of themes (as opposed to specific instructional systems or products) might be:

Individualized instruction
Methods of inquiry
Humanizing learning
Use of technology
Community involvement
Alternative programs

List any additional themes you think of:

_____

_____

_____

_____

The advantages of using a broad theme as a basis for system-wide diffusion could include the following:

Giving each school a local option to adopt its own version of the theme; this allows for adaptation to local differences.

Allowing for a greater sense of system-wide involvement in a broad general goal.

Variations on the theme as expressed in different schools allow a basis for comparison and the eventual combining of the best features of each variation.

List any additional advantages you think of:

_____

_____

_____

_____

The following example illustrates the application of a theme approach in a particular school district. There are no worksheets or answer keys to this objective. It is designed merely to acquaint you further with the possibilities of a thematic basis for diffusing change programs.

The Pennurban Alternative School Program

The Pennurban School District had long been plagued with poor attendance and dropout problems on the secondary level. The superintendent was in favor of initiating a series of alternative programs which might appeal to students dissatisfied with more traditional schooling. Accordingly, a Director of Alternative Programs was designated who was asked to call a meeting in the spring of 1971 of all secondary principals of the 48 high schools in the district. Since Pennurban is a large city system, it is divided into sub-districts each with its own District Superintendent. These persons also were invited to participate in the meeting on alternative programs. The principals were given a set of guidelines for writing proposals for alternative programs which could be set up either within a school building or in a community setting. Volunteer participation by both teachers and students in proposal writing was assumed. Once the alternative programs were established, participation in them would also be voluntary.

Principals were charged with devising alternative proposals which would be reviewed by a central office committee. The Director of Alternative Programs offered help in project development and implementation. Programs were to be initially funded by Title I and Title III funds as well as by the district's operating budget.

When proposals were submitted to the Director of Alternative Programs and his staff of three field coordinators, they were divided into three

categories:

1. A project that was definitely "go" and would be immediately funded and implemented.
2. A project that would eventually be accepted after certain revisions had been made.
3. A project requiring major revisions before it could be considered.

Approximately 25 proposals were approved as pilot programs for the first year of operation, and 20 marginal proposals were approved for subsequent implementation. (Some programs, judged non-productive, were later phased out.)

In addition to the Office of the Director of Alternative Programs, there is a Proposal Review Committee consisting of central office staff, and a city-wide Advisory Group including parents, teachers, principals and students. Thus, there is considerable involvement on many levels in planning for the diffusion of the alternative program theme, and for reviewing those programs currently operating on a pilot basis.

Since the Alternative Project began in 1971, it has spread so that almost every high school in the city offers its own version of one or more alternatives to traditional schooling. However, the diffusion process has not been without problems. Mobility of students among schools with differing programs and articulation among levels have caused some difficulties. The need for staff training has been extensive; this has been partly handled by involving teachers in the initial program design. Teachers union resistance has offered another problem. The union has been disturbed by some relocation of teachers to alternative sites, and the time required for inservice training. (However, the Director of Alternative Programs is attempting to handle these problems by the gradual phasing in of new programs, advance planning for teacher allocation, and the establishment of

voluntary workshops for teacher training.)

In discussing this program, the Director noted the following points which he considered crucial to the diffusion of a theme-based pilot project to system-wide use:

1. A good political base. This includes state, city, and school board support. Pilot projects often need state definition as "experimental programs" in order to avoid hampering regulations such as certification requirements. The Pennurban District has been fortunate in receiving such cooperation from the state.

2. Media support. Positive publications and/or coverage of the pilot project will help expedite the diffusion process.

3. Support of parents and community. This can be achieved not only by involving community representatives in the planning process, but by inviting them to observe the pilot program in operation.

4. Support of teacher organizations. This is essential, and can probably be best achieved by inviting union representatives to participate in each step of the planning process.

5. Central office commitment. In the Pennurban case, the alternatives idea was initiated by the superintendent. However, it was also vital to have a central office Proposal Review Committee which was directly involved in choosing and subsequently evaluating the programs.

6. Support of other staffs. These include personnel involved with budget planning, evaluation, curriculum, etc. The success of the diffusion effort depends largely on the involvement and interest of as many elements as possible.

Objective 9. List the advantages of a home-made product or program for system-wide diffusion.

Very often, particularly in the curriculum area, a school district will purchase a "packaged" program or product marketed by a commercial agency. The lack of time or expertise in a given district may make it impossible to duplicate the quality of a product developed by outside experts. Such products usually have built-in procedures for implementation, allow for efficient use of resources, and have widely proven efficacy.

However, there often are considerable advantages for system-wide diffusion of employing a home-made (district-created) product. This home-made feature may involve making substantial modifications in some externally-created product or program, or it may involve local development from scratch. Advantages gained when diffusing a home-built product are apt to be high staff involvement or sense of ownership, reduced costs of locally developed materials as contrasted to those purchased from an outside source, high adaptability to local needs and characteristics, and possibility of community involvement in program development.

The following examples illustrate the process of developing and diffusing a home-made product, and some of the advantages that result. The first example describes the local modification of a specific individualized learning program. The second example reports an instance where a district developed a non-traditional grading and reporting system from the beginning.

Example 1. This example illustrates the manner in which a school system can modify an externally-developed program and diffuse it system-wide, making use of the original program's positive elements while at the same time tailoring it to specific local needs.

In 1969 the East Brampton School District decided to expand into all elementary schools an Individualized Math Program (IMP) created by one elementary school as a modification of the Individually Prescribed Instruction (IPI) program. Previous tryout of IPI in that particular school had convinced staff that while the method was excellent, the materials needed improvement. New materials were therefore created based on the IPI model. Since the materials were locally produced, they were less expensive to reproduce by mimeograph, and were felt to be generally more appropriate to the particular needs of East Brampton Schools.

The school board then appropriated $12,000 for the implementation of IMP in all 14 elementary schools and invited all principals to adopt it. However, three principals remained unconvinced and did not accept the program. Eventually the superintendent required these three schools to adopt IMP.

While all elementary schools in the district now use the program, it is with considerable variation among schools. When it was found that the completely individualized approach of IPI (which IMP retained) was not suitable for all children, school-to-school modifications were developed in the form of small group instruction and a seminar system. Other schools retained the main features of IPI instruction by employing paraprofessional aides.

IMP has been diffused to some degree to the East Brampton secondary schools as well. In the junior high schools pre-tests and post-tests for individual mastery are used, and students tend to work in small groups on different units. In the high school, individualized instruction has so far been applied only in geometry.

There has been considerable parent and teacher involvement in developing and implementing this program. Parents may take evening courses in the new math curriculum and may take the same tests their children take, thus learning first-hand how the program works. Teachers are given inservice training time in IMP techniques from 1:30 to 4:30 every Wednesday.

Example 2. Around 1969 the Pennurban School District central administration responded to various pressures from the educational community to develop an alternative process to letter-grade reporting in grades 1-6. Accordingly, the Associate Superintendent for Curriculum and Instruction formed a district-wide advisory committee composed of parents, teachers, and principals. Recommendations for membership on this committee, which eventually numbered 33, came from district superintendents, principals, and the Home and School Council.

The Committee first conducted a 2-year study of grade reporting procedures in other districts. As a result of this study, elements of existing procedures were combined to form a pilot program which would be introduced in eight elementary schools in September 1972.

The program used a descriptive evaluative report to be filled out in duplicate by the teacher. One copy was presented to the parent at regularly scheduled parent-teacher conferences in November and April. These reports were open-ended commentaries on the child's performance in various subject areas. In addition, reports were sent home in February and June indicating the child's competency level in reading and math. (These levels were determined by district-devised competency tests.)

In the spring of 1973 the program was evaluated via a survey of staff by the principals of participating schools, and informal questioning of parents.

The general report was favorable, and resulted in the Committee's recommendation that the program be extended to include six more elementary schools.

The procedure was somewhat changed so that the same reporting form was used in November and April as in February and June. This was a modified version of the open-ended commentary form previously used only in conjunction with parent-teacher conferences. In addition, a data-processing program was initiated to provide pre-printing of standard information, and printouts of master conference schedules (for all children, parents, teachers, times, dates, rooms, etc.) and pre-printed letters informing parents of conference dates.

A second evaluation was conducted through a survey of principals, teachers, parents, and sixth-grade students. In general, the response was favorable, particularly with regard to the parent-teacher conferences. These were felt to provide an excellent avenue of communication and information exchange. A few objections to the program included:

Teacher resistance to the time required to fill out forms

Parent resistance to the time required to interpret forms

Parent fears that letter grades might be required as college prerequisites

Desire of some parents to return to letter grades, but preserve the conference system

Desire of some parents for increased numbers of conferences

As a result of these evaluations, plus further study of the new reporting system by the Committee, several suggestions have been made for future implementation. These include:

The use by all participating schools of the data processing system

Option for children to attend parent-teacher conferences

Provision of orientation guides for teachers, principals, and parents explaining the grading process

Provision of a simplified checklist format to make recording easier for teachers and interpretation easier for parents

Possibility, after the next evaluation, of recommending diffusion to all schools at all levels in the district

Objective 10. Critique a local change strategy and outline a superior strategy for meeting system needs.

The following exercise asks you to apply your understanding of the within-system diffusion process in critiquing one school district's approach to change and in outlining a superior approach. In previous objectives it has been recommended that one of two diffusion strategies be employed: either initial system-wide adoption of a change program, or a pilot approach with initial system-wide participation. From your study of this unit you should now be able to apply criteria suggested previously to assess an example of the change program process and suggest improvements.

Exercise 7

The example given below describes the approach taken in the Judson School District to improve instruction in secondary social studies. This exercise asks you first to critique the approach used. Then, assuming that you were the Associate Superintendent for Instruction in that district, with system-wide responsibility for improvements, to outline an approach to improving social studies that you would have promoted.

The Judson School District Approach to Improving Secondary Social Studies

Judson is an urban school district which includes nine junior high schools (grades 7-9) and six high schools (grades 10-12).

The chairman of the social studies department (Williams) was recently approached by the principal of Carter H.S. (Price) with a concern about the poor performance in his school of 10th and 11th grade students on a nationally-normed social studies achievement test.

Williams noted similar concerns expressed at both the senior and junior high school levels in his meetings with social studies teachers throughout the district. He was also aware of recent developments in innovative social studies curricula, and suggested to Price that an externally developed program, Individualized Social Studies Instruction (ISSI) would be appropriate to adopt in Carter H.S. to increase the motivation of 10th and 11th grade students, with probable improvement in achievement test scores. ISSI is a packaged program with proven effectiveness in several small school districts, but fairly high costs for the materials, workbooks, and audio-visual aids which comprise the program. ISSI is designed for use in grades 9-11.

Williams then met with the Associate Superintendent for Instruction (Karlin) to request approval for the purchase of ISSI for 10th and 11th grades at Carter H.S. Williams' persuasive presentation of ISSI led Karlin to believe that it would be an effective program. Williams reported that ISSI had been tried out successfully in several rural districts, but not in a system similar to Judson. He also reported that he was aware of difficulties in the social studies curriculum in secondary schools throughout the district.

Karlin agreed that ISSI should be adopted at Carter H.S., and took the needed steps to gain the superintendent's approval and facilitate its implementation.

EXERCISE 7 - WORKSHEET

Critique and Outline of Approaches to Improving Social Studies Instruction

Directions: This worksheet provides space for you to critique the preceding example (A), then to outline an improved approach (B). Assume that you are the Associate Superintendent for Instruction in the Judson School District. In your critique note any errors that you consider were made by either the Associate Superintendent or the Department Chairman. In your recommendations for improvement, list any requirements that you think should have been met in the example given or any steps that should have been taken.

A. Critique the approach Karlin and Williams took for improving social studies instruction.

EXERCISE 7 - WORKSHEET (cont'd)

B. Outline an approach to improving secondary social studies that you would have promoted.

Reminder: When you have completed this exercise, check your work against Exercise 7 - Answer Key.

EXERCISE 7 - ANSWER KEY

Obviously, there are different ways in which you could have completed this exercise. However, after studying this unit you should have included in your answer most of the following shortcomings (A) of the approach described in the example, and most of the steps (B) for strengthening this approach.

A. Shortcomings of the approach described in the example.

1. Lack of system-wide involvement of secondary principals and social studies teachers in analyzing needs for improvement in the social studies curriculum.

2. Lack of system-wide involvement in planning an approach to improving instruction in social studies (which might include ISSI in Carter H.S.).

3. Lack of community participation in the planning process.

4. Lack of consideration of alternatives (other approaches than ISSI) to improving social studies.

5. If ISSI were adopted in Carter H.S., no provisions were indicated for diffusing information about this program throughout the district.

B. Steps for strengthening the above approach.

1. You, as Associate Superintendent for Instruction, with the Social Studies Department Chairman, should involve all secondary principals and social studies teachers in a district-wide analysis of needs for improvement in the social studies curriculum.

2. There should be involvement of community representatives and students in analyzing the needs for improvement in social studies.

3. There should be system-wide involvement in planning a generalized strategy for district-wide improvements in social studies (whether involving initial system-wide adoption of some program, pilot testing one program with the prospect of later system-wide adoption, or having different schools adopt change programs specifically suited to them.)

4. Provision should be made for regular communication to staff and community regarding progress in any program undertaken.

5. If any program initiated on a pilot basis should prove successful, plans should be made for considering its diffusion to other schools.

6. If ISSI is considered for system-wide adoption, and if funds are limited, modifications should be provided to reduce costs.

7. Provision should be made for grade-to-grade articulation (9-11, as well as for lower grades).

Objective 11. Outline a plan for introducing and diffusing an innovative program system-wide.

From what you have already learned from this unit, you should now be able to design a diffusion program of your own. This might involve the initial diffusion of a specific innovative program on a system-wide basis, the introduction of a specific program on a pilot basis with later system-wide diffusion, or the system-wide introduction of a theme with school-to-school variations. Any type of program is acceptable as long as it is one which is appropriate for system-wide use.

Exercise 8

The plan you will describe should include the manner in which the program is initiated, a description of the school district involved, and the manner in which the whole district can be included in the diffusion effort. While you may invent an innovative program or draw on your own knowledge and experience, you also may choose any of the following types of programs for system-wide diffusion:

1. An externally developed individualized learning program.
2. An ungraded system, either on the elementary level or throughout all levels.
3. Checkpoint classes or resource rooms for small groups of children with particular math or reading problems.
4. The open classroom.
5. High school honors programs with independent study projects and liaison with universities.
6. Alternative programs or schools.
7. The twelve-month school year.
8. Community involvement in the schools (as teacher aides, tutors, on advisory committees, etc.).

9. Student involvement in decision-making.

10. New systems of reporting pupil progress, including parent conferences.

11. Use of community resources (industries, libraries, museums, etc.).

Since this design is your own, no answer key is provided. Use the worksheet for your answer.

EXERCISE 8 - WORKSHEET

Plan for a System-wide Diffusion of a Program

Directions: Set the stage for your answer by identifying the type of program to be diffused, then give the general characteristics of the school district in which the program occurs. Follow with a step-by-step description of a process resulting in system-wide diffusion.

1. Type of program chosen

2. Description of school district

3. Outline of steps in the diffusion process

EXERCISE 8 - WORKSHEET (cont'd)

Outline of steps...cont'd.

POST-ASSESSMENT EXERCISE - UNIT 10

Directions: This exercise offers you a way of checking how well you have mastered the objectives for diffusing local educational improvement programs. It should take you no more than one-half hour to complete the exercise. Compare your answers to those given in the Answer Key on page 67.

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1. This unit deals with diffusing educational improvement programs within a school system. Diffusion may involve change in a general theme, an instructional system, or an instructional product. Can you give an example of each of these types of change?

Theme: _____

Instructional system: _____

Instructional product: _____

2. Give some examples of needs for change which are apt to exist on a system-wide basis.

3. What are types of innovative programs which, if adopted at one level, cause problems of articulation below or above that level?

4. List some reasons why a successful pilot program may fail to spread system wide.

5. List the advantages of introducing an innovation through the pilot test procedure.

6. List some advantages of introducing a new program initially on a system-wide basis.

7. State the advantages of combining an initial pilot project with system-wide participation in the planning for diffusion.

8. What are the advantages for diffusion of propagating a broad purpose or theme rather than specific changes?

9. List the advantages and disadvantages of a system-made change program as compared to one imported from outside.

Advantages of system-made programs:

Advantages of externally developed programs:

PRE- AND POST-ASSESSMENT EXERCISE - ANSWER KEY

Explanation: An adequate answer would include most of the items or points given in this Answer Key. However, you may have alternatives or additional items in your answer. (For the first question only one example in each category is required.)

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1. Give an example of each of the following types of change patterns.

   Theme:

   Individualized instruction
   Community involvement in the schools
   Cooperative (team) teaching
   Student involvement in decision-making
   Computer assisted instruction
   Open classrooms

   Instructional system:

   Harvard model of team teaching
   Individually Prescribed Instruction (IPI)
   Planned Learning According to Needs (PLAN)
   The Winnetka Plan
   The Montessori Plan
   Melbourne H.S. non-graded plan

   Instructional product:

   Overhead projectors
   Physical Sciences Study Committee (PSSC) physics curriculum
   Filmstrips
   Cuisenaire rods
   Man - a Course of Study

2. Give some examples of needs for change apt to exist on a system-wide basis.

   Reading skills deficiencies
   School-community relations
   Staff in-service training
   Drug problems
   Inter-racial conflict

3. What are types of innovative programs which, if adopted at one level, cause articulation problems at other levels?

   Open classroom plans
   Team teaching
   Nongraded plans
   Use of particular reading programs
   Individualized instruction programs

4. List some reasons why a successful pilot program may fail to spread system-wide.

Inappropriateness of program to other schools, levels, classrooms
High costs of diffusion
Priority differences among schools on program adoption
Insufficient central staff commitment
Lack of a comprehensive diffusion strategy
Reluctance of some schools to adopt programs particularly identified with one particular school
Reluctance of teachers to accept change programs
Personnel changes leading to change of philosophy or commitment

5. List advantages of introducing an innovation on a pilot test basis.

Concentration of resources
Opportunity to evaluate program on limited basis
Provision of training site for teachers and administrators
Provision of demonstration project for other schools in district
Possibility of introducing similar programs for comparison
Ease of returning to traditional methods if program fails
Ease of gaining financial support for a limited program

6. List advantages of introducing a new program initially on system-wide basis.

District-wide involvement of personnel, leading to widespread sense of "ownership".
Removal of suspicion of favoritism toward certain schools.
Opportunity for adaptation of program to differences in schools, personalities, and instructional techniques
Maximizing local tax effort if program is shown to have largest possible impact and most efficient use of funds
Time-saving as compared to several years of pilot phasing

7. State advantages of combining pilot project with system-wide participation in diffusion planning.

Increased involvement of personnel throughout the district in pilot proj project planning
Increased probability of choosing various pilot sites, thus enabling best choice and providing basis of comparison among schools
Opportunity for whole staff to learn from pilot program
Increased possibility for sources of publicity about program
Opportunity for widespread community involvement and chance for observation of program

8. What are advantages of diffusing a broad purpose or theme?

Each school has a local option to adopt its own version of the theme
There is a greater sense of system involvement in a broad general goal
Variations on the theme as expressed in different schools provide a basis for comparison and eventual combining of best features of each variation

9. List advantages and disadvantages of a system-made change program as compared to one imported from outside the district.

Advantages of system-made programs:

High staff involvement and sense of ownership
Reduced costs of locally developed materials
Comparatively low cost of reproducing worksheets, etc.
High adaptability to local needs and characteristics
Possible community involvement in program development

Advantages of externally developed programs:

Represent talents of experts in the field
Built-in ease of implementation
Time-saving for the district
Proven efficacy

UNIT EVALUATION FORM

Unit 10. Diffusing Education Improvement Programs Within a School System

Evaluation by_____ Date_____

Position_____ Organization_____

Please give your reactions to this unit by checking and writing in your opinions and recommendations. Returning this form to Research for Better Schools, 1700 Market st., Philadelphia, Pa. 19103 (Attention: Glen Heathers) will help us judge the value of the unit as well as aiding in its revision.

A. Your judgment on the importance of a unit on this topic as training for leadership in local educational improvement programs.

Check: Very High___ High___ Moderate___ Low___ Very Low___

Your comments:

B. Your judgment of the quality of the introductory section of the unit.

Check: Very High___ High___ Moderate___ Low___ Very Low___

Your comments:

C. Your judgment of the adequacy of the set of unit objectives.

Check: Very High___ High___ Moderate___ Low___ Very Low___

What objectives do you recommend omitting? Why?

What objectives do you recommend adding? Why?

D. Your judgment on the quality of the unit contents.
Check: Very High____ High____ Moderate____ Low____ Very Low____
Your comments:

E. Your judgment on the quality of the unit exercises.
Check: Very High____ High____ Moderate____ Low____ Very Low____
Your comments:

F. Your judgment on the quality of the unit pre- and post-assessments.
Check: Very High____ High____ Moderate____ Low____ Very Low____
Your comments:

G. About how many hours did you take to complete this unit?_____

H. How valuable do you judge this unit to be for training each of the following categories of educational leaders? Please enter the appropriate symbol.
H - Highly valuable. M - Moderately valuable. L - Low value

____ School system central administrators

____ Building principals

____ Curriculum coordinators

____ Field consultants of state education departments

____ Graduate students in administration or supervision

____ Other: